



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : C12N 15/55, 9/20, C12Q 1/68, C12N 15/63, A61K 38/46, C07K 16/40		A3	(11) International Publication Number: WO 00/24911
			(43) International Publication Date: 4 May 2000 (04.05.00)
(21) International Application Number: PCT/US99/25021		(72) Inventors; and (75) Inventors/Applicants (for US only): HILLMAN, Jennifer, L. [US/US]; 230 Monroe Drive, #12, Mountain View, CA 94040 (US). BANDMAN, Olga [US/US]; 366 Anna Avenue, Mountain View, CA 94043 (US). GUEGLER, Karl, J. [CH/US]; 1048 Oakland Avenue, Menlo Park, CA 94025 (US). CORLEY, Neil, C. [US/US]; 1240 Dale Avenue, #30, Mountain View, CA 94040 (US). BAUGHN, Mariah, R. [US/US]; 14244 Santiago Road, San Leandro, CA 94577 (US). AZIMZAI, Yalda [US/US]; 2045 Rock Springs Drive, Hayward, CA 94545 (US). LAL, Preeti [IN/US]; 2382 Lass Drive, Santa Clara, CA 95054 (US). LU, Dyung, Aina, M. [US/US]; 55 Park Belmont Park, San Jose, CA 95136 (US).	
(22) International Filing Date: 27 October 1999 (27.10.99)			
(30) Priority Data: 09/181,317 27 October 1998 (27.10.98) US Not furnished 27 October 1998 (27.10.98) US 09/234,726 21 January 1999 (21.01.99) US Not furnished 21 January 1999 (21.01.99) US			
(63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Applications US 09/181,317 (CIP) Filed on 27 October 1998 (27.10.98) US Not furnished (CIP) Filed on 27 October 1998 (27.10.98) US 09/234,726 (CIP) Filed on 21 January 1999 (21.01.99) US Not furnished (CIP) Filed on 21 January 1999 (21.01.99)		(74) Agents: BILLINGS, Lucy, J. et al.; Incyte Pharmaceuticals, Inc., 3174 Porter Drive, Palo Alto, CA 94304 (US).	
(71) Applicant (for all designated States except US): INCYTE PHARMACEUTICALS, INC. [US/US]; 3174 Porter Drive, Palo Alto, CA 94304 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	
		Published With international search report.	
		(88) Date of publication of the international search report: 10 August 2000 (10.08.00)	

(54) Title: HUMAN PHOSPHOLIPASES

```

1  M E L A L L C G L V V M A - G V I P I Q G G I L N L N K M V 2641779
1  M K V L L L L A V V I M A F G S I Q V Q G S L L E F G Q M I GI 204319

30 K Q V T G K M P I L S Y W P Y G C H C G L G G R G Q P K D A 2641779
31 L F K T G K R A D V S Y G F Y G C H C G V G G R G S P K D A GI 204319

60 T D W C C Q T H D C C Y D H L K T Q G C G I Y K D Y Y R Y N 2641779
61 T D W C C V T H D C C Y N R L E K R G C G T K F L T Y K F S GI 204319

90 F S Q G N I H C S D K G S W C E Q Q L C A C D K E V A F C L 2641779
91 Y R G G Q I S C S T N Q D S C R K Q L C Q C D K A A A E C F GI 204319

120 K R N L D T Y Q K R L R F Y W R P H C R G Q T P G C 2641779
121 A R N K K S Y S L K Y Q F Y L N K F C K G K T P S C GI 204319

```

(57) Abstract

The invention provides human phospholipases (HPPL) and polynucleotides which identify and encode HPPL. The invention also provides expression vectors, host cells, antibodies, agonists, and antagonists. The invention also provides methods for diagnosing, treating, or preventing disorders associated with expression of HPPL.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece	ML	Mali	TR	Turkey
BG	Bulgaria	HU	Hungary	MN	Mongolia	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MR	Mauritania	UA	Ukraine
BR	Brazil	IL	Israel	MW	Malawi	UG	Uganda
BY	Belarus	IS	Iceland	MX	Mexico	US	United States of America
CA	Canada	IT	Italy	NE	Niger	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NL	Netherlands	VN	Viet Nam
CG	Congo	KE	Kenya	NO	Norway	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NZ	New Zealand	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	PL	Poland		
CM	Cameroon	KR	Republic of Korea	PT	Portugal		
CN	China	KZ	Kazakstan	RO	Romania		
CU	Cuba	LC	Saint Lucia	RU	Russian Federation		
CZ	Czech Republic	LI	Liechtenstein	SD	Sudan		
DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

INTERNATIONAL SEARCH REPORT

Intern: [REDACTED] Application No.
PCT, [REDACTED] 99/25021

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/55 C12N9/20 C12Q1/68 C12N15/63 A61K38/46
C07K16/40

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C12Q A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Emest3 Database Entry Aa762051 Accession number AA762051; 28 January 1998 MARRA M. ET AL.: "The WashU-HHMI Mouse EST Project" XP002130208 the whole document ---	2-13
A	US 5 279 957 A (RICHARD GROSS) 18 January 1994 (1994-01-18) the whole document ---	1-16,19
A	WO 95 02328 A (INDIANA UNIVERSITY FOUNDATION) 26 January 1995 (1995-01-26) the whole document ---	1-16,19
	-/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

10 February 2000

Date of mailing of the international search report

16.05.2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

MONTERO LOPEZ B.

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/JP 99/25021

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	<p>JUN ISHIZAKI ET AL.: "Cloning and characterization of novel mouse and human secretory phospholipase A2s" JOURNAL OF BIOLOGICAL CHEMISTRY, [Online] vol. 274, no. 35, 27 August 1999 (1999-08-27), pages 24973-24979, XP002130207 MD US Retrieved from the Internet: <URL:http://intl.jbc.org/cgi/content/full/ 274/35/24973> [retrieved on 2000-02-08] the whole document</p> <p style="text-align: center;">-----</p>	1-16,19

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 99/25021

B x I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
Although claim 19 is directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the composition.
2. ☒ Claims Nos.: 17, 18, 20
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

B x II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-20 partially

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 17, 18, 20

Present claims 17, 18 and 20 relate to an extremely large number of possible compounds. Support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT is not to be found, however, for any specific example of the compounds. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Consequently, no search has been carried out for claims 17, 18 and 20.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

1. Claims: 1-20 partially

Polypeptide of SEQ ID NO:1, fragments and variants thereof; polynucleotide encoding it of SEQ ID NO:4 and variants thereof; use in a hybridizing method; vector and host cell containing the polynucleotide; use thereof for producing the polypeptide; pharmaceutical composition comprising the polypeptide; antibody, agonist and antagonist to the polypeptide and therapeutic use of the antagonist.

2. Claims: 1-8 partially, 12-20 partially

Polypeptide of SEQ ID NO:3, fragments and variants thereof; polynucleotide encoding the same and variants thereof; use in a hybridizing method; vector and host cell containing the polynucleotide; use thereof for producing the polypeptide; pharmaceutical composition comprising the polypeptide; antibody, agonist and antagonist to the polypeptide and therapeutic use of the antagonist

3. Claims: 9-11 partially

Polynucleotide comprising SEQ ID NO:5 and fragments thereof; variant having at least 90% identity and polynucleotide complementary to it.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/25021

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 5279957	A	18-01-1994	NONE		

WO 9502328	A	26-01-1995	AU	7362294 A	13-02-1995
			CA	2167296 A	26-01-1995
			US	5972677 A	26-10-1999
